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Three cases of laminectomy.



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THREE CASES OF LAMINECTOMY.

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THE results of laminectomy for fractures and dislocations of the vertebræ are very uncertain, for with our present resources we are absolutely unable to determine the condition of the cord before operation; the symptoms present may be due to hemorrhage, bony pressure, or adhesions, and at times the cord may be either partially or wholly severed; yet with all the light that has been thrown on the surgery of the spine during the past ten years, we are utterly at a loss to diagnosticate the condition of the cord.

But as laminectomy, if performed aseptically, does not shorten the patient's days, it is our imperative duty to operate, unless the patient is actually in a dying condition. The results are often disappointing (in fact, more so than statistics show, as there is a tendency to report only such cases as terminate favorably), but the patient is given a chance for improvement, with little, if any, danger of shortening his lease of life.

The following three cases, operated upon by Dr. J. C. Biddle and myself, at the State Hospital for Injured Persons, Ashland, Pa., have not been previously reported, and I publish them to complete the list of these cases operated upon at this institution.

CASE I.—Edward E., aged twenty-one years, single, residence Mahanoy City, Pa., was admitted June 17,



1889, suffering from a partial dislocation of the ninth dorsal vertebra. He had been a laborer in the mines, and while working was injured March 18, 1889, by a fall of top rock, and from that date to that of his admission had been under the care of a local physician without any sign of improvement.

At the time of his admission he weighed but ninety-eight pounds; his weight previous to the injury being one-hundred-and-forty-five pounds. He exhibited entire loss of motion in the lower extremities, with the exception of very slight movement in the toes of the left foot; sensation was almost *nil* up to the hips, above which it was normal; he had complete retention of urine, with a severe cystitis. His tongue was heavily coated, the bowels constipated, and there was marked anorexia, with considerable anemia. His temperature varied from 99° to 100° in the morning, and from 101° to 103° in the evening. The time which had elapsed since the accident precluded any attempt at reduction, and his anemic condition would not warrant a more radical method.

He was put on light, nourishing diet, iron and strychnin were given internally, and electricity was applied to the lower extremities every other day; the cystitis was treated by irrigating the bladder each day with Thiersch's solution. By August his appetite and general condition were much improved, and his weight had increased to one-hundred-and-twenty-five pounds; his temperature being 99° or less each morning, and seldom as high as 100° at night. The cystitis had entirely disappeared, and he was able, with some effort, to pass his urine without the aid of a catheter. Sensation in both extremities had slightly improved, and he was able to slightly move the toes of the right foot. This being his condition, an operation was proposed as the only means of further and permanent improvement, and to this he eagerly consented, and, accordingly, on the 25th of August the ninth dorsal vertebra was trephined.

The cord was found to be compressed and greatly congested, but there was no evidence of laceration. The laminae and spinous processes of the eighth and ninth dorsal vertebrae were cut away, thus relieving all pressure on the cord; the wound was drained and sutured, and a plaster-of-Paris jacket applied, a hole being cut out over the wound for the purpose of changing the dressing when necessary. By September 1st union was perfect, and for the next month the patient remained in excellent condition, but without any sign of improvement as to sensation and motion. Early in October he was able to slightly move both legs, and had full control of urination; from this time on his paralysis rapidly improved; the battery was applied daily, with massage morning and evening, and in November the plaster-of-Paris jacket was removed, and he propelled himself about the ward in a rolling-chair, and shortly after was able to get about slowly on crutches. He was discharged December 23d, and when I saw him, six months later, he walked very well and without effort; he carried a cane, but this seemed to be more from habit than from necessity. At present date he weighs one-hundred-and-fifty pounds, and drives a huckster-wagon for a living, showing very little loss of motion in his lower extremities.

CASE II.—Thomas K., aged thirty-five years, married; residence, Shenandoah, Pa.; a laborer employed in the mines, was admitted May 12, 1889. On January 25th, while at work, a piece of coal weighing several hundred pounds slipped out and struck him on the back while he was stooping. He was taken home, and Dr. Biddle saw him in consultation a few hours later, and found him suffering from a fracture of the tenth dorsal vertebra, with extreme displacement, fracture of the middle third of the right femur, and of the fifth, sixth, seventh, eighth, ninth, and tenth ribs on the right side. He had complete loss both of sensation and motion below the seat of injury.

On the day of his admission the fractured femur had partially united, the ribs entirely so, and his condition being fair it was deemed advisable to operate without delay.

Upon trephining, the cord was found to be completely severed, the cut ends being almost an inch apart. Further procedure was, of course, useless, and the wound was sutured and dressed, the patient being made as comfortable as possible until the date of his death, June 12th.

CASE III.—Frank S., aged twenty years, single, residence Gilberton, Pa., by occupation a brakeman, was admitted December 20th, 1889. He had been doubled up under a train of coal cars while endeavoring to couple them, on December 16th, and when admitted had a fracture of the ninth dorsal vertebra, with total paraplegia of the lower extremities. He was operated upon the following day, and the cord was found to be severely lacerated and almost disorganized; there had been considerable hemorrhage, as was evident from the clots present in the vertebral canal and surrounding tissues. The cord and canal were washed out thoroughly, the meninges sutured in three places, the laminæ and spinous processes of the eighth, ninth, and tenth vertebræ cut away, the cavity thoroughly drained and dressed with iodoform-gauze. The wound had united by the 29th, but the patient never rallied, and died January 5th.

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